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The burden of *Taenia solium* cysticercosis in the Democratic Republic of Congo: Towards reliable estimates.

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The larval stage of *Taenia solium*, the pork tapeworm, is the causative agent of human (neuro)cysticercosis ((N)CC), an important zoonotic disease in many developing countries. Despite several reports on the occurrence of NCC in central, eastern and western Africa, its importance in the Democratic Republic of Congo (DRC) needs yet to be established.

To obtain recent data on the status of the disease in DRC studies on human and porcine cysticercosis were conducted in the country. Two pilot studies in the city of Kinshasa revealed a prevalence of active cysticercosis in 6.3% (CI95%: 4.4-8.8) of patients with epilepsy and in 38.4% (CI95%: 34-43) of pigs on markets.

Based hereon, a rural area with known risk factors for the disease was targeted. Serological antigen detection and tongue palpation (TP) were used for the diagnosis of active cysticercosis in pigs (n=153); a questionnaire was used to investigate the level of knowledge on the disease of farmers. People enrolled (n=1011) were sampled blood and faeces and submitted to a screening questionnaire for epilepsy and one on risk factors on the disease.

Among the free roaming pigs of the villages tongue cysticercosis was detected in 5.5% (CI95%: 2.4-10.6) of the animals. The prevalence of active porcine cysticercosis as measured by antigen ELISA was 41.2% (CI95%: 33-49). In humans, an apparent prevalence of 20.9 % (CI95%: 18.3-23.6) was measured for active cysticercosis and of 0.3% (CI95%: 0.8-1.1) for taeniasis. The screening questionnaire for epilepsy was positive in 15% of the individuals. Neurological follow up and detection of the antibody response is ongoing.

The data presented here point to the detection of a hyper-endemic focus of human and porcine cysticercosis in DRC with levels of active infection reaching up to one fifth of the human population and almost half of the pig population. Interestingly, the latter are extremely high as compared to observations made in other parts of the world. More in depth analyses are ongoing to enable a reliable burden assessment of the disease and a better understanding of the epidemiology of human and porcine cysticercosis in this area.